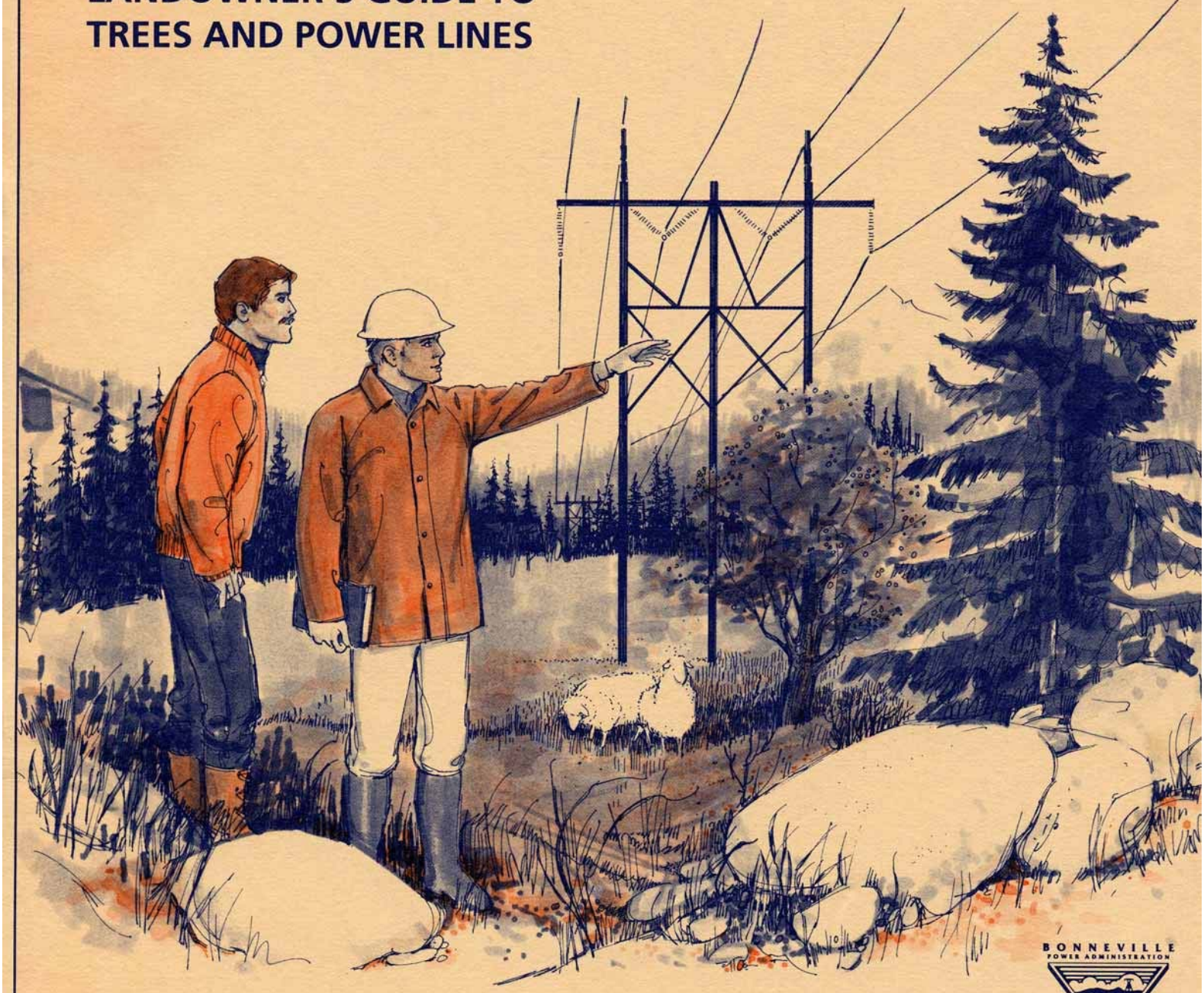
LANDOWNER'S GUIDE TO TREES AND POWER LINES



BONNEVILLE
POWER ADMINISTRATION

Throughout history, the tree has been recognized as a universal symbol of life. Truly, today, trees play an essential role in our everyday lives as they have in the past. They offer shade and privacy, buffer noise and wind, filter out dust and freshen the air. They beautify our homes and our communities. Trees bear colorful flowers, berries and fruit. They also provide cover and food for birds and other wildlife. And, in the autumn, some trees display their splendor in vibrant shades of gold, copper, and vermilion.

Nowhere in the nation are trees more abundant and varied than in the Northwest, making them one of our more valued treasures.

This brochure explains how trees and power lines can coexist. It outlines conditions under which trees are compatible with or become a danger to power lines. It also describes actions you can take to protect your plantings on or near Bonneville Power Administration (BPA) easements and rights-of-way.

INTRODUCTION

Generally, BPA builds power lines, substations, and other facilities for two reasons: to bring new power to meet the needs of the people of the Northwest, and to ensure that consumers continue to have a reliable supply of electricity. When we build these facilities, we often purchase easements (certain rights to use land) from the owner of the property we cross. These easement rights allow BPA to control vegetation on and sometimes off the right-of-way so that the facilities may be safely and reliably operated and maintained.

SAFE LOGGING PRACTICES SAVES LIVES

Every year people suffer serious injuries in the Northwest due to unsafe logging practices around power lines. These injuries or loss of life can be avoided by paying attention and playing it safe.

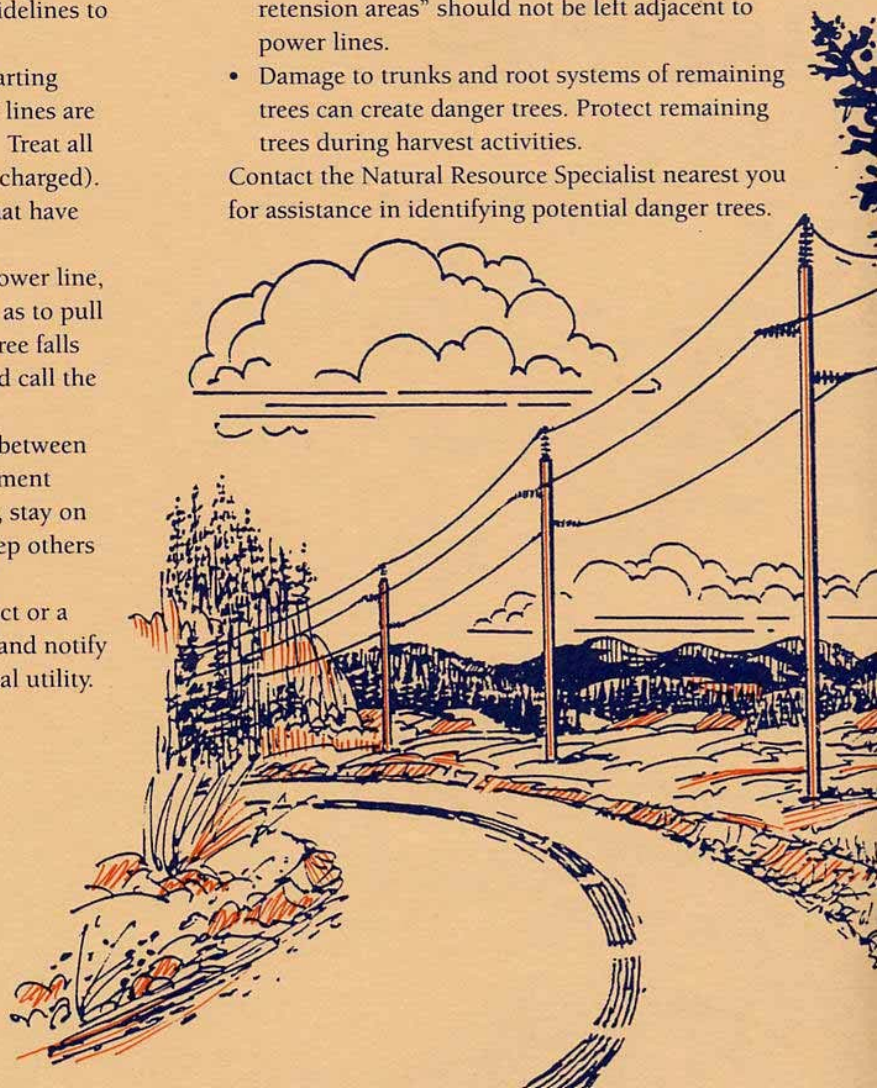
A tree falling through or near a power line can be a hazard to people and their equipment. For that reason, we suggest the following guidelines to make this operation the safest possible.

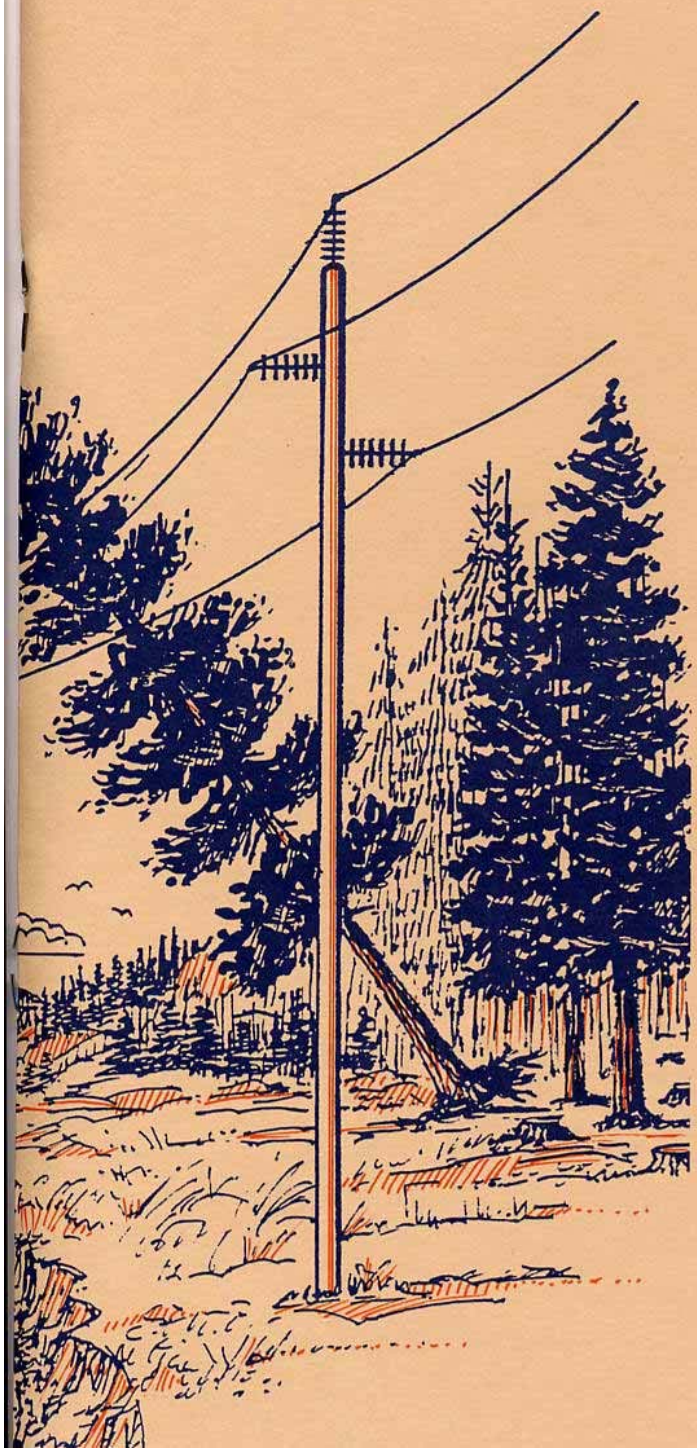
- Always look for power lines before starting harvest operations. Whenever power lines are present, contact the local utility first. Treat all power lines as energized (electrically charged).
- Never climb or attempt to fall trees that have limbs caught in power lines.
- If a tree has the potential to reach a power line, a line should be placed on the tree so as to pull it as it falls away from the line. If a tree falls into a power line, stop! Stay clear and call the local utility.
- Maintain at least 20 feet of clearance between equipment and power lines. If equipment comes into contact with a power line, stay on the equipment until help arrives. Keep others away.
- If a fire starts from an electrical contact or a downed power line, contain the fire, and notify the fire protection agency and the local utility.

SAFE LOGGING PRACTICES PREVENTS DANGER TREES

- Trees left adjacent to the right-of-way after logging may create fringes that can be hazardous to power lines. They may be unstable and can fall during windstorms causing power outages and starting wild fires.
- State required "leave trees" or "green tree retension areas" should not be left adjacent to power lines.
- Damage to trunks and root systems of remaining trees can create danger trees. Protect remaining trees during harvest activities.

Contact the Natural Resource Specialist nearest you for assistance in identifying potential danger trees.





WHAT YOU CAN DO

As a property owner, you can help BPA ensure against electrical outages and at the same time protect yourself and prevent damage to your property. We suggest the following:

DON'T PLANT TREES ON THE RIGHT-OF-WAY without first talking to your local BPA Natural Resource Specialist.

SELECT PLANTINGS CAREFULLY.

When thinking about trees or shrubs to plant, find out how tall and wide the full-grown plant will be. Generally, small trees and shrubs with a mature height of 10 feet or less will not cause problems within the right-of-way unless they are planted on an access road or too close to towers or poles. Trees planted adjacent to the right-of-way should not exceed 20 feet in height when fully grown. Ask about its growth pattern, maintenance needs, and the strength of its wood. Strong, flexible (not brittle) wood, resistance to disease and insects, and deep-rooted (rather than shallow-rooted) growing patterns are also important characteristics. We also recommend trees or shrubs adapted to the climate of the Northwest and that are able to withstand local storm conditions (wind, snow or ice loading, rain-soaked soils, and so on). Consult your local nursery to help you select suitable plantings.

PLANT TREES AND SHRUBS TO MINIMIZE OBSTRUCTION OF ELECTRICAL FACILITIES OR OF ACCESS TO THEM.

As a general rule of thumb, it is best not to plant trees or shrubs on the right-of-way. However, if you need or want plantings in this area, consult first with your local BPA Natural Resource Specialist. You may not plant trees or shrubs within 30 feet of towers, poles, or other groundbased structures, or in any place that would block off or overgrow access roads. Many BPA transmission structures have wires attached to them that are buried. These wires are part of the grounding system. They can extend up to 250 feet from the structures and are usually buried one to two feet deep. If you contact these wires while planting or digging, please do not damage, cut, or relocate them and immediately contact your local Natural Resource Specialist.

DO NOT PLANT POPLARS ADJACENT TO THE RIGHT-OF-WAY.

Very tall, brittle trees such as poplars are often planted as windbreaks. These should not be planted anywhere near the right-of-way because they are fast growing and have weak, brittle wood. They increase the hazard to power lines and the potential for property damage and fires.

PLANT COMMERCIAL PLANTINGS PARALLEL TO THE POWER LINE.

Commercial plantings, such as Christmas trees or orchards are acceptable with a signed and approved Tree and Brush Agreement. They should be planted parallel to the power line. They should not cut across the right-of-way or they could be damaged if long spans of conductor should need to be lowered to the ground for repair or maintenance. Remember, commercial plantings such as Christmas trees and orchards require permits. These permits require that the permitee maintain trees at specific heights and distances from BPA facilities and access roads.

MAINTAIN PLANTINGS PROPERLY.

Proper maintenance will increase the health and life span of plantings. It may also reduce hazards to the power line. You can examine trees and shrubs for signs of insects and disease. Be careful when pruning or trimming. But above all, remember to maintain at least 20 feet of clearance between the conductors and any conductive objects. Don't let tree limbs, equipment or people violate that safety clearance.

REMEMBER:

- **The trimming of trees around power lines is extremely dangerous and can cause loss of life and property.**

- **Always keep a safe working distance from power lines.**

- **If a tree has already grown within or even close to a critical distance from the Line, DO NOT CUT THE TREE YOURSELF. Instead, contact the nearest BPA Natural Resource Specialist, and BPA will advise you or even cut the tree down for you.** If you choose to trim or cut the trees around a power line, BPA highly recommends that you hire a professional tree trimmer who has qualifications to work near electrified lines.

MORE INFORMATION

If you'd like to know more about trees and power lines, here is a list of publications and other information sources that are available.

The Yellow Pages of your phone book may provide additional resources. Check under the following headings: Arborists, Landscape Architects, Landscape Contractors, Nurseries and Tree Services.

PUBLICATIONS

The following publications may be useful:
Maintenance of Shade and Ornamental Trees, P.P. Pirone. Oxford University Press.

Pruning How-To-Guide for Gardeners, Robert L. Stebins and Michael MacCaskey. Fisher Publishing Co.

How to Detect and Correct Hazard Trees Near Your Home, Lynn Mills and Kenelm Russell. Washington Department of Natural Resources, Olympia, WA 98504. Free

Publications Catalogue, Bulletin Department, Cooperative Extension. Cooper Publications Bldg., Washington State University, Pullman, WA 99164. Lists many free or low-cost publications.

Publications, Bulletin Mailing Office, Industrial Building, Oregon State University, Corvallis, OR 97331. Lists many free or low-cast publications.

BPA PUBLICATIONS

Living and Working Safely Around High-Voltage Power Lines

Landowner's Guide to BPA Projects: Before and During Construction

Landowner's Guide to Use of BPA Rights-Of-Way

Keeping The Way Clear For Better Service: Danger Tree Program

What We Know (And Don't Know) About EMF or Electric Power Lines: Questions and Answers on Research into Health Effects

These publications are available by calling your local BPA office or by writing to:

Bonneville Power Administration
Public Information Center
P.O. Box 3621
Portland, OR 97208